

Date: Friday, 09/05/2008 1:46:02 PM  
 User: Julie Lecocq

## Process Sheet

<b>Customer</b> : CU-DAR001 Dart Helicopters Services	<b>Drawing Name</b> : SHORT STEP ASSEMBLY HIGH SKID LH
<b>Job Number</b> : 39164	
<b>Estimate Number</b> : 10575	
<b>P.O. Number</b> :	<b>Part Number</b> : D350591213
<b>This Issue</b> : 09/05/2008 <b>S.O. No.</b> :	<b>Drawing Number</b> : D3078 REV A
<b>Prsht Rev.</b> : NC	<b>Project Number</b> : N/A
<b>First Issue</b> : / / <b>Type</b> : LARGE FAB ASSY	<b>Drawing Revision</b> : A
<b>Previous Run</b> : 38334	<b>Material</b> :
<b>Written By</b> :	<b>Due Date</b> : 16/05/2008 <b>Qty:</b> 5 <b>Um:</b> Each
<b>Checked &amp; Approved By</b> : <u>JLD 08.5.09</u>	
<b>Comment</b> : Est Rev:B 05.10.14 Modified step 10 KJ/EC	
Est Rev:C 06-06-19 Added D2732-030 AS PER DSI9294 JLM	
Est Rev:C 06-06-27 Revised as per DSI9340 JLM	

## Additional Product

Job Number:



Seq. #:	Machine Or Operation:	Description :
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1.0	DC	DOCUMENT CONTROL
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**Comment:** DOCUMENT CONTROL

Photocopy bluefile and type labels as per PPP D350-591-213 CHG002

08/06/08 08.5.13 JLD

2.0	D2622120C	Step Extrusion
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**Comment:** Qty.: 0.5000 Each(s)/Unit Total : 2.5000 Each(s)

Pick:

Qty Part Number Description Batch

1 D2622-120C Extrusion 331754

08-06-02 5

3.0	LARGE FAB 1	LARGE FABRICATION RESOURCE 1
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**Comment:** LARGE FABRICATION RESOURCE 1

1-Cut D2622-120 extrusion to 59.75" long as per Dwg D3078

2-Drill extrusion as per Dwg D3078 using Jig DT8680 for rivets.

3-Deburr

08-06-02 5  
08-06-02 5  
08-06-02 5

4.0	QC5	INSPECT WORK TO CURRENT STEP
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**Comment:** INSPECT WORK TO CURRENT STEP

08/06/08 08.5.13 JLD

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

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Drawing Name: SHORT STEP ASSEMBLY HIGH SKID LH

Job Number: 39164

Part Number: D350591213

Job Number:



Seq. #:

Machine Or Operation:

Description :

5.0

D30671

End Plate



Comment: Qty.: 1.0000 Each(s)/Unit Total : 5.0000 Each(s)

Pick:

Qty Part Number

Description Batch

1 D3067-1

End Plate 338426

SP 08-06-03 5

08-06-03 5

6.0

D30631

Support



Comment: Qty.: 1.0000 Each(s)/Unit Total : 5.0000 Each(s)

Pick:

Qty Part Number

Description Batch

1 D3063-1

Support 335691

SP 08-06-03 5

08-06-03 5

7.0

LARGE FAB 1

LARGE FABRICATION RESOURCE 1



Comment: LARGE FABRICATION RESOURCE 1

1-Bevel end for welding FWD ONLY

2-Weld Support using Jig DT8681, weld Fwd End Plate as per QSI 004 & Dwg D3072

A/R Aluminum Rod m106834  
m107678

3-Grind End Plate flush

SP 08-06-03

SP 08-06-03

SP 08-06-03-3

08-06-03-2

8.0

QC9

VISUAL WELDING INSPECTION



Comment: VISUAL WELDING INSPECTION

08-06-05

9.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

08/06/05 52H

10.0

HAND FINISHING1

HAND FINISHING RESOURCE #1



Comment: HAND FINISHING RESOURCE #1

Chemical Conversion Coat as per QSI 005 4.1

08/06/09

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QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

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Drawing Name: SHORT STEP ASSEMBLY HIGH SKID LH

Job Number: 39164

Part Number: D350591213

Job Number:



Seq. #:

Machine Or Operation:

Description :

11.0

QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



Comment: INSPECT POWDER COAT/CHEMICAL CONVERSION

*[Signature]* 08.06.10 5

12.0

D3065041

Step Leg Assembly Hi



Comment: Qty.: 1.0000 Each(s)/Unit Total : 5.0000 Each(s)

Pick:

Qty Part Number

Description

Batch

1 D3065-041

Step Leg Assy

335626

*[Signature]* 08.06.10 5

13.0

D30661

Spacer



Comment: Qty.: 2.0000 Each(s)/Unit Total : 10.0000 Each(s)

Pick:

Qty Part Number

Description

Batch

2 D3066-1

Spacer

338925

*[Signature]* 08.06.10 5

14.0

MS20600AD4W4

Rivets



Comment: Qty.: 16.0000 Each(s)/Unit Total : 80.0000 Each(s)

Pick:

Qty Part Number

Description

Batch

16 MS20600AD4W4

Rivet

M108077

*[Signature]* 08.06.10 5

15.0

LARGE FAB 1

LARGE FABRICATION RESOURCE 1



Comment: LARGE FABRICATION RESOURCE 1

Rivet Leg Assembly as per Dwg D3078.

*[Signature]* 08.06.10 5

16.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

*[Signature]* 08.06.10 5

17.0

D30671

End Plate



Comment: Qty.: 1.0000 Each(s)/Unit Total : 5.0000 Each(s)

Pick:

Qty Part Number

Description

Batch

1 D3067-1

End Plate

338924

*[Signature]* 08.06.10 5

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
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Drawing Name: SHORT STEP ASSEMBLY HIGH SKID LH

Job Number: 39164

Part Number: D350591213

Job Number:



Seq. #: Machine Or Operation: Description :

18.0

LARGE FAB 1

LARGE FABRICATION RESOURCE 1



Comment: LARGE FABRICATION RESOURCE 1

1-Bevel Aft end for welding

2-Inspect for foreign object as per QSI 02

3-Weld Aft End Plate as per QSI 004 & Dwg D3078

A/R Aluminum Rod

4-Grind End Plate flush

*SP 08.06.10*

*SP 08.06.10*

*SP 08.06.11*

*M106834*

*SP 08.06.11*

19.0

QC9

VISUAL WELDING INSPECTION



Comment: VISUAL WELDING INSPECTION

*PD 08-06-12*

20.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

*08/06/12* *(547)*

21.0

HAND FINISHING1

HAND FINISHING RESOURCE #1



Comment: HAND FINISHING RESOURCE #1

Touch Up Chemical conversion

*FL 08/06/12*

22.0

POWDER COATING

POWDER COATING



Comment: POWDER COATING

Powder Coat White Gloss (Ref: 4.3.5.1) as per QSI 005 4.3

START TIME:

OVEN TEMPERATURE:

FINISH TIME:

*10:45*  
*320 °F*  
*11:15*

*M-h 08/06/12*

*(5X)*

23.0

HAND FINISHING1

HAND FINISHING RESOURCE #1



Comment: HAND FINISHING RESOURCE #1

Wing Walk as per Dwg D3078 and QSI 005 4.4

*M10 7892*

*RL/M-h 08/06/12*

*(5X)*

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

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Job Number: 39164

Part Number: D350591213

Job Number:



Seq. #:

Machine Or Operation:

Description :

24.0

QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



Comment: Inspect Powder Coat and Wing Walk

508/06/17 (454H)

25.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Pick Packing Kit

26.0

D22301

Lug



X5

Comment: Qty.: 2.0000 Each(s)/Unit Total: 10.0000 Each(s)

Pick: Packing Kit

Qty Part Number

Description Batch

2 D2230-1

Clamp

39315

50

27.0

D22303

Lug



Comment: Qty.: 2.0000 Each(s)/Unit Total: 10.0000 Each(s)

Pick: Packing Kit

Qty Part Number

Description Batch

2 D2230-3

Clamp

38532

38919

50

28.0

D2732

Rubber Extrusion



Comment: Qty.: 1.0500 f(s)/Unit Total: 5.2500 f(s)

Pick: Packing Kit

Qty Part Number

Description

Batch

4 D2732-030(3" LONG)

Rubber Cushion

37632

50

29.0

D2856400

Abrasion Strip



Comment: Qty.: 0.6000 f(s)/Unit Total: 3.0000 f(s)

Pick: Packing Kit

Qty Part Number

Description Batch

1 D2856-400(7.2")

Abrasion Strip

36161

8/6/10

50

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

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Job Number: 39164

Part Number: D350591213

Job Number:



Seq. #:

Machine Or Operation:

Description :

30.0

AN335A

Bolt



Comment: Qty.: 2.0000 Each(s)/Unit Total : 10.0000 Each(s)

Pick: Packing Kit

Qty Part Number Description Batch

2 AN3-35A

Bolt

106993

SP

31.0

AN411A

Bolt



Comment: Qty.: 6.0000 Each(s)/Unit Total : 30.0000 Each(s)

Pick: Packing Kit

Qty Part Number Description Batch

6 AN4-11A

Bolt

106605

SP

32.0

AN413A

Bolt



Comment: Qty.: 4.0000 Each(s)/Unit Total : 20.0000 Each(s)

Bolt

Batch: 107534

SP

33.0

AN960JD10

Washer



Comment: Qty.: 4.0000 Each(s)/Unit Total : 20.0000 Each(s)

Pick: Packing Kit

Qty Part Number Description Batch

4 AN960JD10

Washer

108077

SP

34.0

AN960JD416

Washer



Comment: Qty.: 12.0000 Each(s)/Unit Total : 60.0000 Each(s)

Pick: Packing Kit

Qty Part Number Description Batch

12 AN960JD416

Washer

107939

SP

35.0

MS21042L3

Nut



Comment: Qty.: 2.0000 Each(s)/Unit Total : 10.0000 Each(s)

Pick: Packing Kit

Qty Part Number Description Batch

2 MS21042L3

Nut (or -3)

107644

8/6/10

SP

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

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Job Number: 39164

Part Number: D350591213

Job Number:



Seq. #:

Machine Or Operation:

Description :

36.0

MS21042L4

Nut



Comment: Qty.: 6.0000 Each(s)/Unit Total : 30.0000 Each(s)

Pick: Packing Kit

Qty Part Number Description Batch

6 MS21042L4

Nut (or -4)

107478

8/4/10

SD

37.0

QC4

INSPECT 100% KITS FOR COMPLETENESS



Comment: INSPECT 100% KITS FOR COMPLETENESS

AS 08/06/18 X5 LH

38.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and pack for shipping as per PPP D350-591-213

Location:

PPP Rev:

Rev D

AS 08/06/18



39.0

QC21

FINAL INSPECTION/W/O RELEASE



08/06/19

Comment: FINAL INSPECTION/W/O RELEASE

Job Completion



W 08-06-18

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
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**NOTE:** Date & initial all entries



DESIGN <i>CP</i>	DRAWN BY <i>CP</i>	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>#</i>	APPROVED <i>#</i>	DRAWING NO. <b>D3078</b>	REV. A SHEET 1 OF 2
DATE <b>02.09.11</b>		TITLE <b>STEP ASSEMBLY, HI SHORT</b> SCALE NTS	
A	02.09.11	NEW ISSUE	

**RELEASED**  
02.09.20 *#*

Part No.	Description	QTY -041	QTY -042
D3078-041	Step Assembly, High Short (LH)	X	
D3078-042	Step Assembly, High Short (RH)		X
D2622-60	STEP EXTRUSION	1	1
D3063-1	SUPPORT	1	1
D3065-041	LEG ASSEMBLY	1	1
D3066-1	SPACER	2	2
D3067-1	END PLATE	2	2
MS20600AD4W4	RIVET	16	16

**GENERAL NOTES:**

- 1) -041 SHOWN, FOR -042 INSTALL D3063-1 SUPPORT OPPOSITE SIDE
- 2) WELD PER DART QSI 004
- 3) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1  
POWDER COAT ASSEMBLY WHITE (4.3.5.1) PER DART QSI 005 4.3  
BLACK ANTI-SKID PAINT PER DART QSI 005 4.4
- 4) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED.

SHOP COPY  
RETURN TO  
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UNCONTROLLED COPY  
SUBJECT TO AMENDMENT  
WITHOUT NOTICE  
WORK ORDER  
NO. 39164

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W/O:		WORK ORDER CHANGES					
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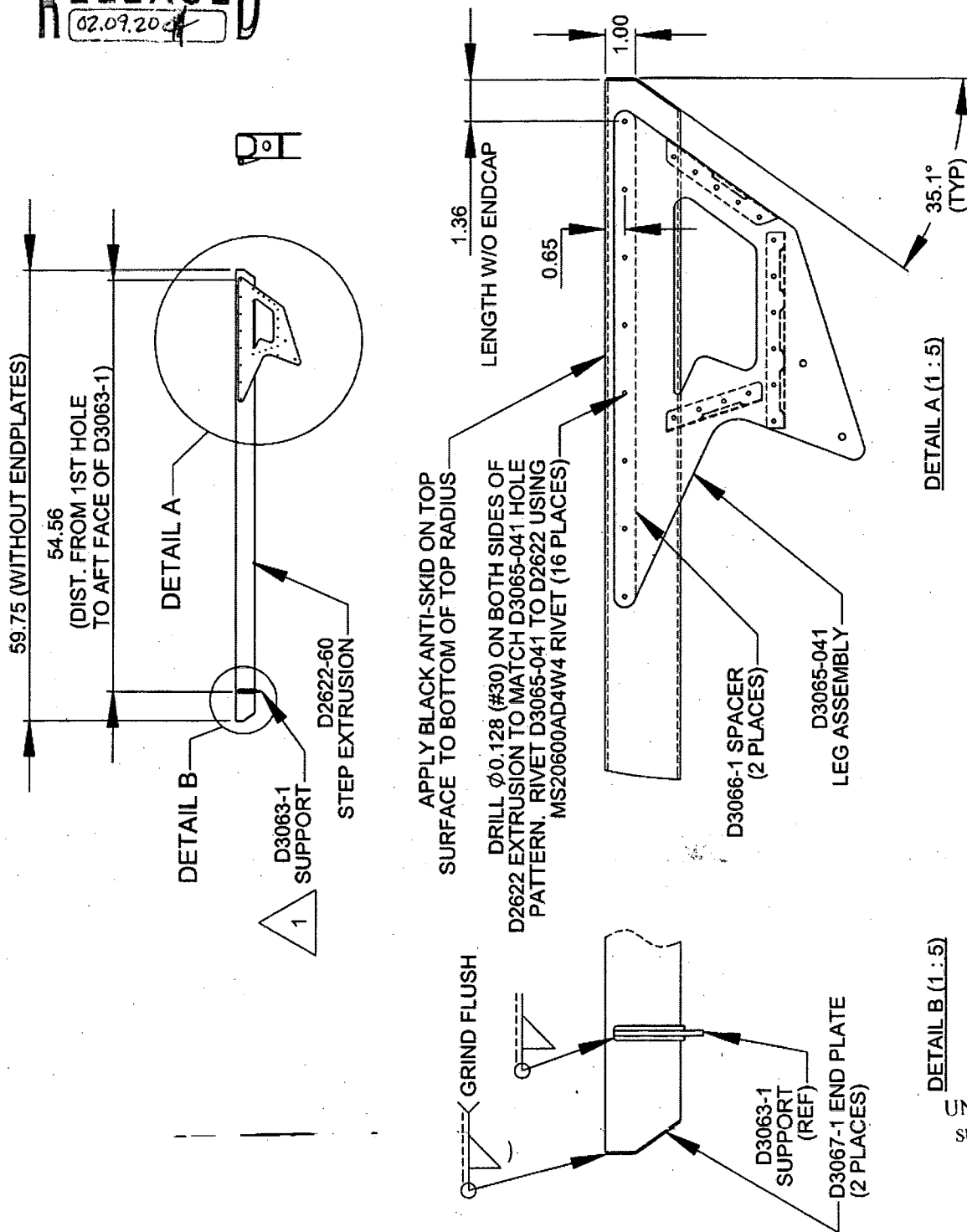
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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries



**DART**

DESIGN <i>OP</i>	DRAWN BY <i>OP</i>	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>OP</i>	APPROVED <i>OP</i>	DRAWING NO. <b>D3078</b>	REV. A SHEET 2 OF 2
DATE <b>02.09.11</b>	TITLE <b>STEP ASSEMBLY, HI SHORT</b>		SCALE 1:20

**RELEASED**  
02.09.2011**DETAIL B (1:5)**

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**Dart Aerospace Ltd**

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Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

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